



Technology and Learning Connections
Increasing student achievement through the systemic alignment of technology, policies, and curriculum in a multi-tiered system of supports.

Student Response Systems and Accessibility - UDL Approach

Presented by:
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UDL - Brain Research




Recognition Network

- The "what" of learning
- Provide Multiple Means of Representation





Strategic Network

- The "how" of learning
- Provide Multiple Means of Action and Expression






Affective Network

- The "why" of learning
- Provide Multiple Means of Engagement

UDL Brain Research

- Recognition Network
 - The "what" of learning
 - Provide Multiple Means of Representation
- Strategic Network
 - The "how" of learning
 - Provide Multiple Means of Action and Expression
- Affective Network
 - The "why" of learning
 - Provide Multiple Means of Engagement

Recognition Network

- Provide Multiple Means of Representation

How we gather facts and categorize what we see, hear, and read.

Identifying letters, words, or an author's style are recognition tasks.

Multiple Means of Representation

Provide options for perception

Provide options for language, mathematical expressions, and symbols

Provide options for comprehension

Multiple Means of Representation

- Provide options for perception
 - Offer ways of customizing the display of information
 - Size of **text**, images, graphs, tables, or other **visual content**
 - Offer alternatives for auditory information
 - Captions or automated speech-to-text
 - Offer alternatives for visual information
 - Provide descriptions (text or spoken) for all images, graphics, videos, or animations



Multiple Means of Representation

- Provide options for language, mathematical expressions, and symbols
 - Clarify vocabulary and symbols
 - Clarify syntax and structure
 - Support decoding text, mathematical notation, and symbols
 - Promote understanding across languages
 - Illustrate through multiple media

Multiple Means of Representation

- Provide options for comprehension
 - Activate or supply background knowledge
 - Highlight patterns, critical features, big ideas, and relationships
 - Guide information processing, visualization, and manipulation
 - Maximize transfer and generalization

Strategic Network

- Provide Multiple Means of Action and Expression

Planning and performing tasks.
How we organize and express our ideas.
Writing an essay or solving a math problem are strategic tasks.

Provide Multiple Means of Action and Expression

Provide options for physical action

Provide options for expression and communication

Provide options for executive functions

Provide Multiple Means of Action and Expression

- Provide options for physical action
 - Vary the methods for response and navigation
 - Optimize access to tools and assistive technologies



Provide Multiple Means of Action and Expression

- Provide options for expression and communication
 - Use multiple media for communication
 - Use multiple tools for construction and composition
 - Build fluencies with graduated levels of support for practice and performance



Provide Multiple Means of Action and Expression

- Provide options for executive functions
 - Guide appropriate goal-setting
 - Support planning and strategy development
 - Facilitate managing information and resources
 - Enhance capacity for monitoring progress



Affective Network

- Provide Multiple Means of Engagement

How learners get engaged and stay motivated.
How they are challenged, excited, or interested.
These are affective dimensions.

Provide Multiple Means of Engagement

Provide options recruiting interest

Provide options for sustaining effort and persistence

Provide options for self regulation

Provide Multiple Means of Engagement

- Provide options for recruiting interest
 - Optimize individual choice and autonomy
 - Optimize relevance, value, and authenticity
 - Minimize threats and distractions



Provide Multiple Means of Engagement

- Provide options for sustaining effort and persistence
 - Heighten salience of goals and objectives
 - Vary demands and resources to optimize challenge
 - Foster collaboration and communication
 - Increase mastery-oriented feedback


Provide Multiple Means of Engagement

- Provide options for self-regulation
 - Promote expectations and beliefs that optimize motivation
 - Facilitate personal coping skills and strategies
 - Develop self-assessment and reflection




Student Response Systems

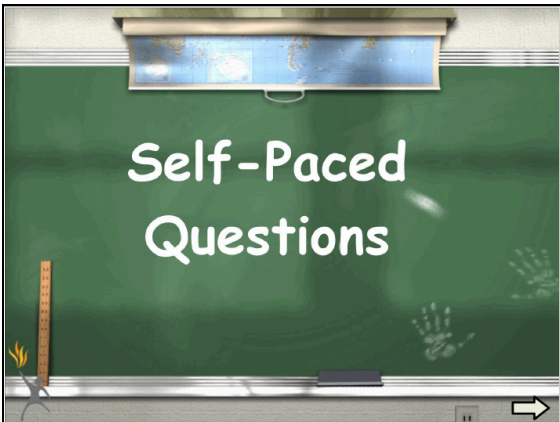
How can SRS be used to support UDL?




Student Response Systems

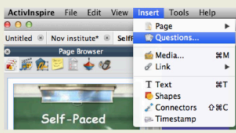
1. Self Paced Questions
 - Allows learners to progress at their own pace
 - Questions are not displayed on flipchart
 - Questions are displayed on ActivExpression or ActivEngage
 - Use Self paced question wizard
 - Shuffle questions, randomize answers
 - Choose how many questions each learner must answer correctly before moving onto next question
2. Express Polls / Teacher Paced (Prepared Questions)
 - Questions written on page
 - One question per page
 - Instant feedback on student performance





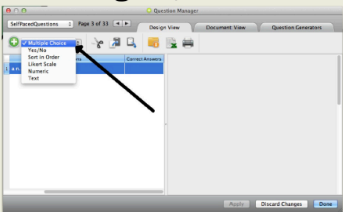


Adding Questions



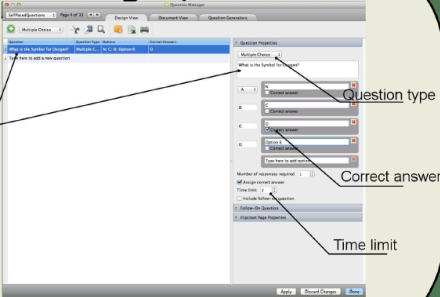
Choose Insert > Questions

Adding Questions



Select the type of question you wish to enter

Adding Questions



Type question here

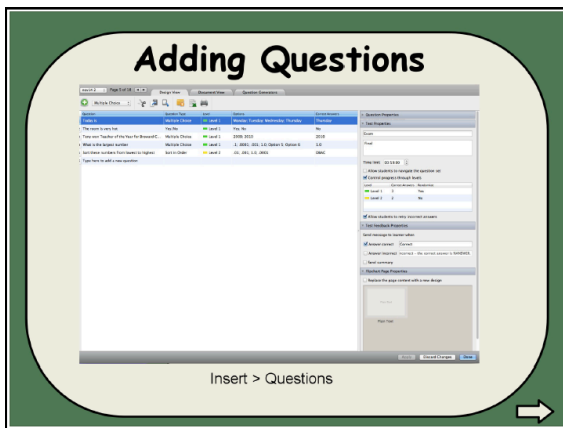
Question type

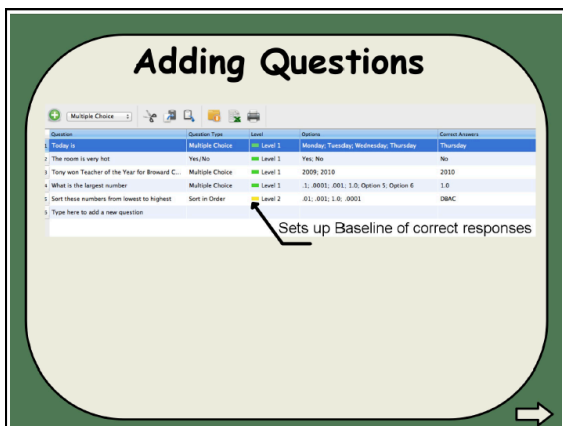
Correct answer

Time limit

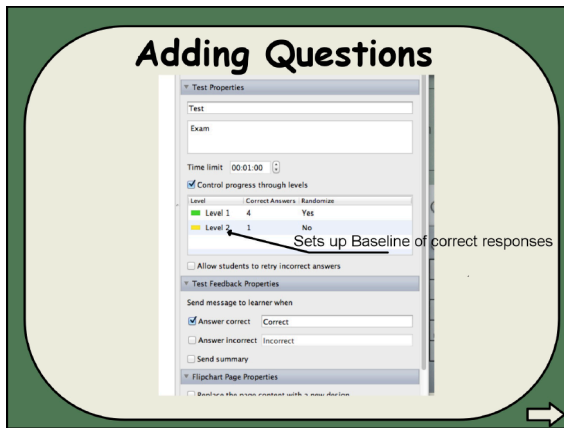
Be sure you are on the page that questions will appear on



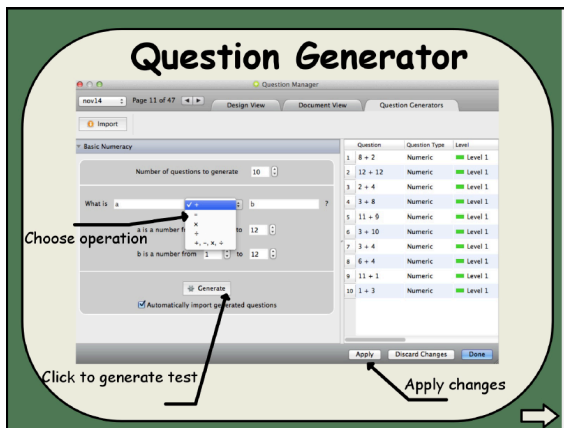




Adding Questions



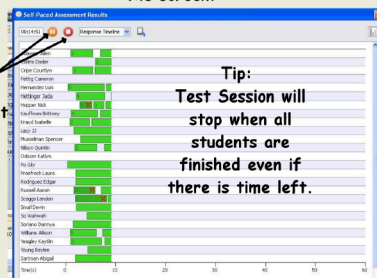
Question Generator



Answering the Question Set

While students are answering the questions, this will appear on the screen.

You can
Pause or
Stop the
students at
any time.



Reviewing Response

You can see what the student answered by hovering the arrow over the box.

Level 1: Question 3
The opposite of gain is
A? 2: answered correctly
Answered time: 45 seconds

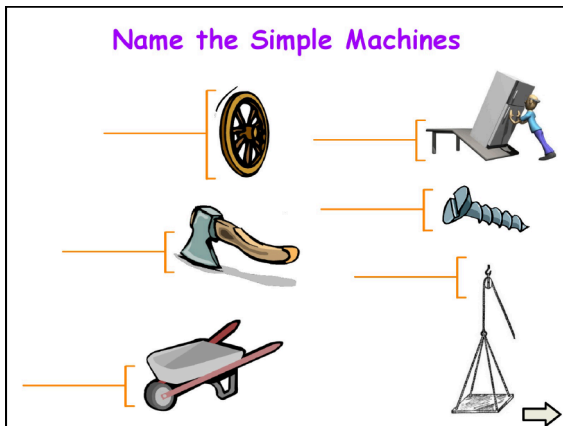
Reviewing Responses

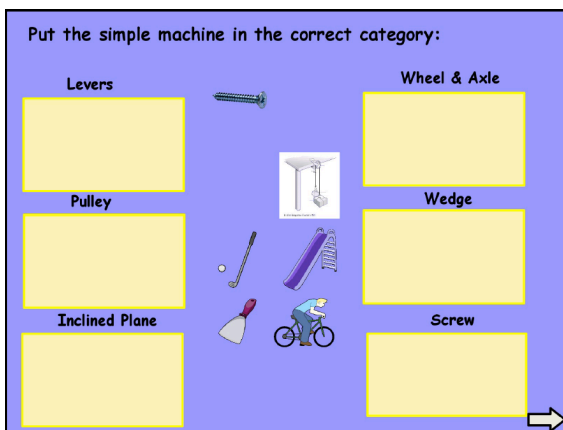
Notice I changed the view.

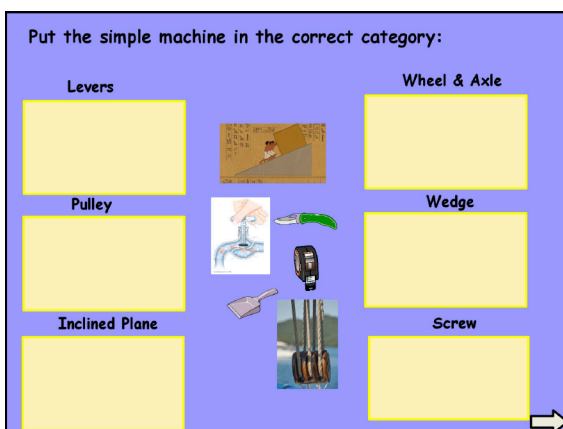
This is another way to view how the students did on the question set.

Types of Simple Machines

Physical Science
Grade 3








Get your
ActiveExpression
controllers
READY!!!



➡


It's Quiz Time!!!



➡

1. Which of the following is an example of work?

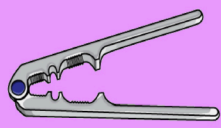
- ☐ a holding a dog
- ☐ b packing a bag
- ☐ c pushing against a wall
- ☐ d thinking about a math problem



➡

2. This is an example of a:

- ☐ a wedge
- ☐ b screw
- ☐ c lever
- ☐ d wheel-and-axle



➡


ActivEngage

<http://www.prometheanplanet.com/en/Support/Support.aspx>

1. Learner Response Systems > ActivEngage > Download
2. English US
3. Choose PC/ MAC or Mobile Download



**Get your
ActivEngage
devices
READY!!!**



Register Your Device

Device registration is the process of telling the ActivHub how many ActivEngage clients there are in the classroom, and their names. You need to register ActivEngage clients before you begin a voting session. You start registration from the Voting Browser in ActivInspire.

Make sure that your students have started ActivEngage on their computers.

Register Your Device

In Device Registration in ActivInspire, make sure that you select the correct ActivHub, then select **ActivExpression** devices before you click Register.

Register Your Device

During registration, ActivInspire allocates names to ActivEngage clients. You can let ActivInspire generate these automatically from the computer names, or let students enter a name at the keyboard. You can also rename the clients later.

Register Your Computer

ActivInspire

To register, students must connect to an ActivHub. The connection method depends on the network setup, and affects what students have to do. Check the prompt on the students' ActivEngage displays.

Register Your Computer

ActivEngage

Register Your Computer

ActivEngage








Register Your Mobile Device

Learners in institutions that use Distributed Directory mode need to complete the following additional steps:

Note:
Learners may need to scroll up or down to display your virtual ActivHub.

1. Tap to select your virtual ActivHub from the list.

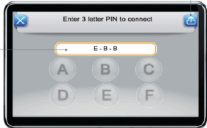


2. Tap Send.

Register Your Mobile Device

All learners must complete the following steps:

3. Enter 3 letter PIN.




4. Tap Send.

Register Your Mobile Device

If you chose to let learners name their Promethean ActivEngage Mobile clients, they must enter the name now.

1. Enter name.



2. Tap Send.

Register Your Mobile Device


The PIN and, if entered, the name, is sent to ActivInspire or Promethean ActivOffice.
If learners have entered the correct PIN, the device now shows that the client is registered and connected to the selected virtual ActivHub.

Name of virtual ActivHub to which client is connected

Client's name




It's Quiz Time!!!



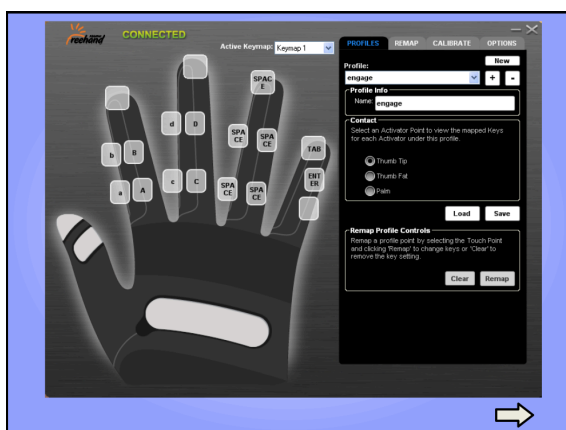
1. What is a slanted surface that makes it easier to move objects?

- ☐ a pulley
- ☐ b work
- ☐ c lever
- ☐ d inclined plane



Make It Accessible For All






It's Quiz Time!!!



1. How do scientists measure work?

- a friction
- b fulcrum
- c effort
- d load




SRS

What else could be used to make SRS accessible?

ONYX™ Deskset XL 22




Resources



Lesson plans, Resources, PD
<http://www.prometheanplanet.com/en/>

ActivInspire - A basic introduction
<http://www.youtube.com/watch?v=EGsBwOF3kAI>

National Center for UDL
<http://cast.org/udl/index.html>
